

Andalusian Innovation Strategy 2020, RIS3Andalucía

Progress Intermediate Evaluation

Executive summary



This executive summary forms part of the “Interim Assessment of the Andalusia Innovation Strategy 2020, RIS3Andalucía” implemented under the auspices of the Innovation and Development Agency of Andalusia (Agencia IDEA) between March and June 2019 to assess the first half of the period of validity is aimed at guiding decision-making for the rest of the implementation framework.

This summary is structured in 4 parts:

- Assessment of the public action.
- The Assessment Process.
- Conclusions.
- Recommendations.

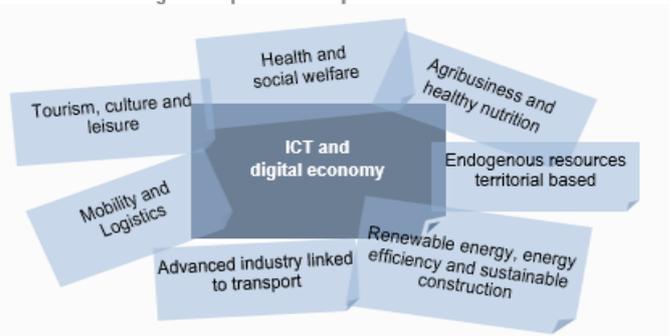
ASSESSMENT OF THE PUBLIC ACTION

The Andalusian Innovation Strategy 2020 (RIS3Andalucia) establishes the objectives and priorities of the Regional Government of Andalusia in relation to research, innovation and the use of information technologies. Its drafting allowed for the ex-ante condition required by the EC for the approval of priority Axis 1 “Strengthening research, technological development and innovation” of the European Regional Development Fund (ERDF) Operational Programme to be met.

RIS3Andalucía aims to tackle 9 challenges and achieve 15 final objectives within the framework of a smart specialisation model based on 8 Specialisation Priorities.

8 axes of action are established, with a total of 42 measures designed in their rollout. The financial framework provided for was 3,776.4 million euros.

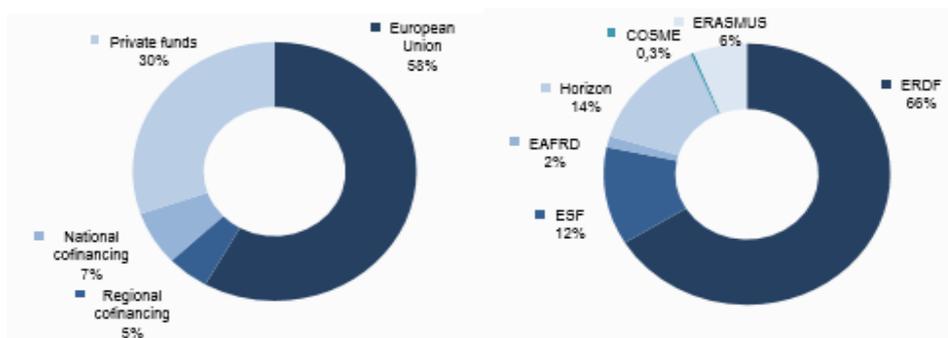
ES Figure 1. Specialization priorities in Andalusia



Source: RIS3Andalucia

The financing comes primarily from public funds (2,632.0 million), mostly from the EU (2,194.6 million euros

ES Figure 2. RIS3Andalucía Sources of funding

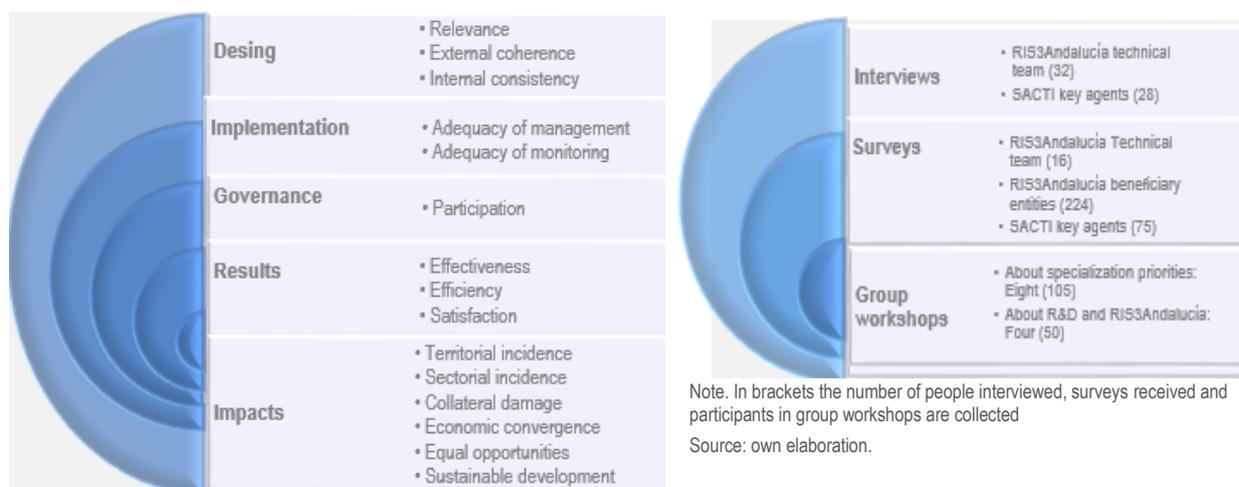


Source: Financial framework RIS3Andalucía, 2015; own elaboration.

THE ASSESSMENT PROCESS

The interim assessment of RIS3Andalucía was contained in the Specific Assessment Plant of the ERDF OP Andalusia 2014-2020, establishing that their design, implementation and results reached would be evaluated. The IDEA Agency, in its capacity as Technical Secretariat, specified the content of this assessment, defining 15 assessment criteria, developed through 161 questions.

ES Figure 3. Evaluation criteria applied



To respond to the assessment questions, an extensive volume of information, principally generated in 60 interviews, 12 group workshops in which 155 persons have participated and 3 questionnaires (315 questionnaires completed).

CONCLUSIONS

Pertinence

The 9 challenges identified in the RIS3Andalucía design process remain in force and it should be these that guide the application of the measures over the coming years. Two new challenges have been identified in the identification process, relating to knowledge transfer processes from the agents of the Science, Technology and Innovation System of Andalusia (SACTI) towards Andalusian companies and social innovation in institutions, organisations, entities and companies in Andalusia.

The challenges of the 8 specialisation priorities also remain, although in some cases it is necessary to make changes to adapt to the current situation. Moreover, across various priorities new challenges arising from economic, social and environmental change have arisen since the approval of RIS3Andalucía.

In the evaluation process, it has been shown that some specialisation priorities are too broad, as occurs with several of the lines of action they develop, which may diminish their contribution to specialisation through RIS3Andalucía, and therefore they must be specified.

Internal Coherence

The execution of RIS3Andalucía in the period 2014-2018 varied moderately with respect to its design, fundamentally because several administrative centres of the Regional Government of Andalusia have not acted on all the measures having initially participated, which resulted in implementation being more limited than expected and the financial execution not reaching the level envisaged.

The most used instruments have been advanced services and subsidies. Even though they were provided for in the design, it has not been possible to use refundable financial instruments and no fiscal instrument have been put in place, which has limited the versatility of the “tool box” available to RIS3Andalucía.

ES. Figure 4. Public funds in RIS3 Andalucía (millions of euros)

Planned 2014-2020	Provision 2014-2018	Committed 2014-2018	Paid 2014-2018
2,632.0	1,817.1	1,091.2	312.0

Source: Monitoring report 2019. RIS3Andalucía.

The coordination between the administrative centres that execute the actions in the framework of RIS3Andalucía has been low, in part due to the fact that in the design of the measures, the ways in which the centres participating in the same measures would interact were not defined and during the implementation this situation was not resolved, even though certain overlaps and redundancies were identified due to this.

External Coherence

RIS3Andalucía has adequately fulfilled the role of “strategic framework” for innovation in Andalusia, as it has guided the definition of the planning instruments subsequently approved by the Regional Government of Andalusia that seek to change the regional production model, principally the Industrial Strategy of Andalusia 2020, the Strategy to foster the ICT sector in Andalusia, the Research and Innovation in Health Strategy and the Innovative Public Procurement Strategy.

In these instruments, planning has constituted a general alignment and no objectives that contradict RIS3Andalucía or measures that might negatively affect its objectives have been identified, which means that external coherence is high and the actions taken within the framework of those sectoral planning instruments have contributed to the objectives of RIS3Andalucía.

Quality Management

RIS3Andalucía has been managed through the processes and procedures of the administrative centres that participate in the measures, which in some cases have incorporated selection criteria for the actions linked to the specialisation priorities. RIS3Andalucía has no own management processes and procedures beyond those linked to its governance role.

The persons who form the Technical Team of RIS3Andalucía generally have positive opinions of the management of the measures. They also have a positive opinion of management of the companies and entities benefitting from the incentives granted in the framework of RIS3Andalucía although not all parts of the process as, “Payment for assistance provided” is viewed negatively.

RIS3Andalucía did not incorporate into its design a specific plan for promotion and dissemination, which in its implementation constituted a limit to knowledge by the agents of the SACTI and Andalusian society. This situation was mitigated somewhat by the actions of the Technical Secretary and some administrative centres of the Regional Government of Andalusia in the framework of the strategies, plans and sectoral programmes and the thematic platforms of the S3 of the European Commission.

Quality of Monitoring

The monitoring of RIS3Andalucía was, generally, not integrated with the monitoring systems of the administrative centres of the Regional Government of Andalusia, a fact caused by the shortcomings of the design, due to the lack of an implementation plan quantifying the objectives and budgets for the measures and the calendar, and how the governance bodies showed poor drive.

Due to this, the information generated in the course of the monitoring of RIS3Andalucía has proven moderately useful, as it has been insufficient in allowing us to ascertain what was being executed as the information used has been mainly financial, the analysis carried out have been very general and have reached few conclusions for decision-making.

Despite these shortcomings, which must be resolved in as short a term as possible to improve the quality of monitoring, it is necessary to highlight the preparation of monitoring reports that have allowed us to ascertain what was completed in the framework of RIS3Andalucía up to 2018.

Efficacy

The efficacy with which the measures have been executed in the period 2014-2018 cannot be assessed precisely due to the fact that specific objectives are not quantified. The qualitative and quantitative indicators that have been used indicate that the objectives have been low, an aspect coherent with the level of execution of ERDF OP 2014-2020.

Progress on the level of the axes has been low in general, although with some important differences, as in Axis 1. Efficient and Competitive Industry and in Axis 2. Facilitative Technologies, an important part of the budget has been spent. In the other axes, execution has been low.

The effectiveness of the incentives granted to companies have been moderate as around half the subsidised projects would “likely” or “very likely” not have been executed without the assistance provided and approximately three quarters of the other half were modified by the companies as a result of the incentive, broadening their scope or improving their innovation element.

SACTI agents have differing opinions regarding the effectiveness of the subsidies used in RIS3Andalucía, with practically the same number responding with “high” or “very high” effectiveness as those responding with “low” or “very low”, although with differences depending on the project.

The advanced services provided to companies and others have generally been effective, as knowledge and quality of information of the recipients of same have improved, which has allowed them to improve in relation to their decision-making on innovation strategies and competitive positioning.

Overall, the SACTI agents consider the advanced services provided in the framework of RIS3Andalucía to be effective to foster innovation, even if opinions vary depending on the type of service.

Efficiency

The efficiency with which the measures have been executed cannot be assessed precisely as the measures have not been assigned a budget. On top of this situation, the degree of efficiency of execution of Axis 1 has been analysed. Boost R&D&I and Axis 2. Improve the use of ICTs of ERDF OP Andalusia, using the indicators in the Performance Framework.

In all the indicators of productivity considered in the Performance Framework for the axes, the figures provided for 2018 have been exceeded, insofar as certified expenditure was lower than envisaged for both axes, meaning that the efficiency with which the two axes have been executed is superior to that initially planned.

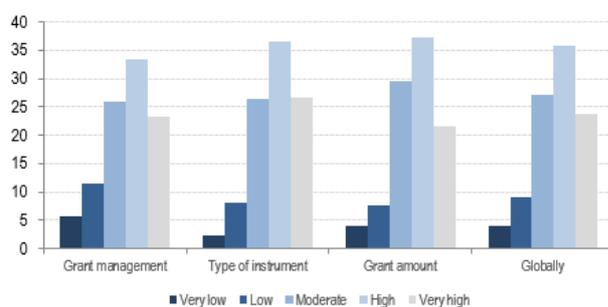
The projects that would have been carried out without the assistance provided are situations of inefficiency, but many of these have been modified thanks to the subsidies with a greater innovative component, greater investment or have provided cooperation with other companies or research groups, which has seen situations of inefficiency reduced notably.

Satisfaction

The Technical Team's satisfaction with the execution of RIS3Andalucía is generally moderate, primarily due to the delay in implementation due to their poor levels of access to dissemination and information.

The satisfaction of companies and entities benefitting from the assistance is also moderate, unlike the different components of assistance, as it is higher in respect of the type of instrument used (subsidies) than in respect of the sum of the assistance or the management of assistance.

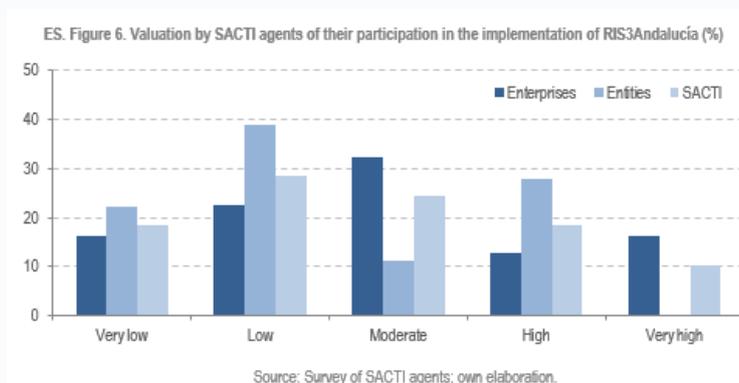
ES Figure 5. Satisfaction of companies and entities benefiting from the aid granted under the RIS3Andalucía (%)



Source: Survey of companies and entities benefiting from the aid granted under the RIS3Andalucía; own elaboration.

Participation

The functioning of the governance bodies of RIS3Andalucía, during execution, has not lived up to what was expected in terms of adequate driving and management of this public action, mainly due to the fact that the period 2015-2018 has seen few sessions held. There has not been sufficient institutional support and the participation of members has been limited.



Nevertheless, SACTI agents have participated in the development of RIS3Andalucía measures in different ways, mainly through workshops or working panels and the drafting of reports. In general, participation has been adequate, as has that of the companies with the entities (agents of knowledge).

Collateral Effects

The business projects supported have had collateral effects for 34.4% of the companies that have carried them out, almost all positive, 97.3%. These include: better positioning in the markets, execution of complementary projects, greater number of customers, contracting of personnel, extension of services, new markets and products, strengthening of corporate image, greater productivity, more competitiveness, greater specialisation.

For 6.6% of the SACTI agents, RIS3Andalucía has had collateral effects, positive in all cases, such as greater cooperation in the development of R&D and an increase in business competitiveness sustained in a superior specialisation, internationalisation and concentration of efforts on the solution to the key needs of the business

Territorial Incidence

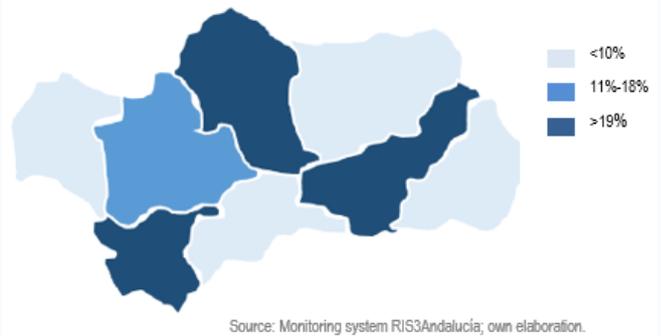
In the conceptual and pragmatic structure of RIS3Andalucía, no challenges or objectives were established in relation to the contribution that would be expected with its improving development of the spine of R&D&I activity at regional level.

The territorial incidence of RIS3, assessed on the basis of the business projects incentivized by the IDEA agency, demonstrates a notable concentration of innovative investment and support for innovation approved in the provinces of Cádiz, Granada and Córdoba.

In the province of Cádiz, the existence of an Integrated Territorial Initiative led to greater intensity of action in the framework of RIS3Andalucía, having committed funds to major infrastructure works.

In just 11 municipalities, 5 or more business investment projects in innovation related to RIS3Andalucía, concentrating 47.1% of the total of approved projects, 23% of incentivizable investment and 26.2% of approved assistance. The municipalities that concentrate the highest number of projects are the capitals of the provinces of Sevilla, Granada, Huelva y Córdoba, and Lucena (Córdoba).

ES Figure 7. Provincial distribution of business project investment linked to RIS3Andalucía (%)



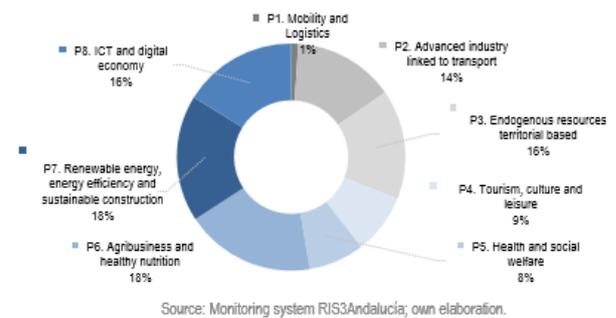
Sectoral Incidence

The commitment made by the Regional Government of Andalusia to industrial development was reflected in the sectoral distribution of assistance granted in the framework of RIS3Andalucía by the IDEA Agency, as the “manufacturing industry” was the productive branch that most benefitted from innovation support (55.9% of subsidies approved).

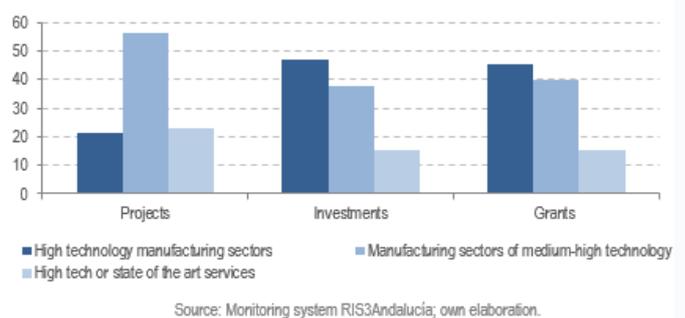
But what stands out above all is the role of high and medium-high technology, which represents 30.2% of incentivized investment, a proportion well in excess of the participation of these activities in the Andalusian economy (around 5% of GVA).

The specialisation priorities “Agroindustry and healthy eating” and “Renewable energies, energy efficiency and sustainable construction” are the concentration of incentivized investment and support provided, although the priority “ICT and the digital economy” is the most numerous in term of projects approved.

ES Figure 9. Distribution of the Investment supported by aid according to the Specialization Priorities (%)



ES Figure 8. Projects, investments and grants in medium-high technology sectors, by activity (%)



Convergence

Since 2014, Andalusia has converged with Spain on 7 of the 15 areas referred to in the final objectives of RIS3Andalucía. The convergence has arisen primarily in the use of ICTs in innovative companies and in export manufacturers of high and medium high technology, insofar as the difference with Spain has lied primarily in innovation spending and the intensity of innovation.

Convergence with respect to the EU has been similar to Spain's, with a reduction in the differences in the use of ICTs and extending the differences in general aspects of R&D and companies in the digital market.

RIS3Andalucía has contributed to the economic convergence of Andalusia with Spain and the EU as, as a consequence of its approval, the Regional Government of Andalusia and Andalusian universities have been able to make a series of R&D payments and have fostered investment in innovation projects and have distributed advanced technological services between companies and private entities, thus improving the indicators associated with the final objectives of RIS3Andalucía.

ES Figure 10. Summary of the evaluation of economic convergence of Andalusia.

Objectives	Regarding Spain	Regarding EU
R&D expenditure with respect to GDP	No	No
Innovation spending	No	--
Andalusian companies incorporated into the digital market	No	No
Patents Requested	Yes	--
Innovative companies	Yes	--
Intensity of innovation in innovative companies	No	--
VAB manufactures of medium and high technology	No	--
Private sector participation in R&D	No	No
Exports medium and high technology activities	Yes	--
Fast broadband coverage	Yes	Yes
Research personnel	No	No
Companies interact with the Administration via Internet	No	--
Population that interacts with Administration via Internet	Yes	Yes
Population that regularly uses the Internet	Yes	Yes
Households with connections above 100 Mbps	Yes	--

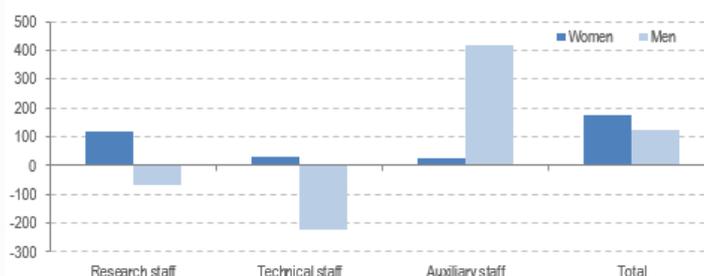
Source: System of Indicators of the Andalusian Innovation Strategy 2020; own elaboration

Equality of Opportunities

In the drafting of RIS3Andalucía, the gender perspective was not taken into account, which has resulted in the number of actions carried out to foster equality between men and women being few in number and low intensity. This shortcoming was corrected in the subsequent approval of PAIDI 2020 which has seen a slight improvement in the presence of women in R&D activities in Andalusia between 2014 and 2017.

In that period, the number of women working in R&D has risen by 177, 1.8% more, mainly in the development of research tasks (68% of the total increase), meaning that in 2017 women are 0.7 percentage points better represented in research personnel than in 2013.

ES Figure 11. Variation in the 2014-2017 period of the number of women and men working in R&D in Andalusia.

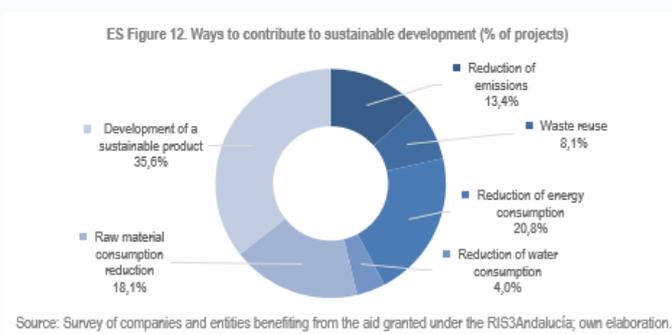


Source: Statistics on R&D Activities. IECA, 2019; own elaboration.

Sustainable Development

To move towards a Sustainable Andalusia a number of different lines of actions were established in the specialisation priorities, primarily in "renewable energies, energy efficiency and sustainable construction" and "territorially based endogenous resources".

RIS3Andalucía's contribution to sustainable development is high, with the majority of administrative centres of the Regional Government of Andalusia having carried out actions to foster sustainable development and many of the business projects supported have been geared towards that objective, fundamentally through the development of more sustainable products and energy saving and raw materials.



Conditions for the Period 2021-2027

The current RIS3Andalucía presents a high degree of compliance with the criteria for “Good Governance of RIS3” which should satisfy the smart specialisation strategies in the programme period 2021-2027, as 5 criteria were fully met and 2 partially.

ES Figure 13. Revision of criteria for the enabling condition

Criteria	Compliance
1. Up-to-date analysis of bottlenecks for innovation diffusion, including digitalisation	Partial
2. Existence of competent regional / national institution or body, responsible for the management of the smart specialisation strategy	Yes
3. Monitoring and evaluation tools to measure performance towards the objectives of the strategy	Yes
4. Effective functioning of entrepreneurial discovery process	Partial
5. Actions necessary to improve national or regional research and innovation systems	Yes
6. Actions to manage industrial transition	Yes
7. Measures for international collaboration	Yes

Source: own elaboration.

RECOMMENDATIONS

The team responsible for this assessment has made 27 recommendations which have been integrated with the following 6 proposals for improvement:

- RIS3Andalucía review
- Governance improvements
- Update of the Entrepreneurial Discovery Process (EDP)
- Monitoring and Evaluation Plan review
- Implementation Plan
- RIS3Andalucía Communication campaigns

RIS3Andalucía review

Main actions	Leader
<ul style="list-style-type: none"> - Incorporation of new challenges. - Re-drafting of specialisation priorities and lines of action. - Definition and quantification of objectives on Axis level. - Allocation of specific funds. - Incorporation of gender focus. 	Codecision Body.
Scope of action (recommendations)	Priority
Desing (11)	Very high

Governance improvements

Main actions	Leader
<ul style="list-style-type: none"> - Institutional drive. - Simplification of governance model. - Incorporation of the CDTI. 	General Secretariat of Business, Innovation and Entrepreneurship.
Scope of action (recommendations)	Priority
Governance (3)	Very high

Update of the Entrepreneurial Discovery Process (EDP)

Main actions	Leader
<ul style="list-style-type: none"> - Implementation of working groups for specialisation priorities or other elements of participation.. 	RIS3Andalucía Technical Secretariat.
Scope of action (recommendations)	Priority
Implementación (1)	Medium

Monitoring and Evaluation Plan review

Main actions	Leader
<ul style="list-style-type: none"> - Strengthening of monitoring system. - Adaptation of monitoring tools to the reality of execution. 	RIS3Andalucía Technical team.
Scope of action (recommendations)	Priority
Implementación (3)	Alta

Implementation Plan

Main actions	Leader
<ul style="list-style-type: none"> - Redefinition of support management processes. - Definition of mechanisms for coordination between administrative centres. - Strengthening of mechanisms to capture R&D projects of high to medium high technology companies. - Purification of record of actions. - Specification of indicators for physical and financial execution at management level. - Quantification of targets for indicators for execution and interim targets. - Chronology and scorecard per manager. - Establishment of alert thresholds. 	Management bodies that participate in the measures.
Scope of action (recommendations)	Priority
Implementación (7)	Very high

RIS3Andalucía Communication campaigns

Main actions	Leader
<ul style="list-style-type: none"> - Definition and development of a dissemination programme. - Increase in actions to provide information, raise awareness and disseminate knowledge. 	RIS3Andalucía Technical Secretariat.
Scope of action (recommendations)	Priority
Implementación (2)	High



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